



Department of Defense

DIRECTIVE

July 31, 1992
NUMBER 3222.4

ASD(C3I)

SUBJECT: Electronic Warfare (EW) and Command, Control, and Communications Countermeasures (C3CM)

- References:**
- (a) Directive 3222.4, "Electronic Warfare Administration," January 28, 1980 (hereby canceled)
 - (b) DoD Directive 4600.4, "Command, Control, and Communications (C3) Countermeasures," August 27, 1979 (hereby canceled)
 - (c) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
 - (d) DoD Directive 3222.2, "Department of Defense Electromagnetic Compatibility Program (EMCP)," August 20, 1990
 - (e) DoD Directive 3100.3, "Cooperation with Allies in Research and Development of Defense Equipment," September 27, 1963
 - (f) DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

A. REISSUANCE AND PURPOSE

This Directive reissues reference (a) and replaces reference (b) to update the administration of and organizational responsibilities for EW and C3CM in the Department of Defense.

B. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Unified and Specified Commands, and the Defense Agencies (hereafter referred to collectively as "the DoD Components"). The term "Military Services," as used herein, refers to the Army, the Navy, the Air Force, and the Marine Corps.

C. DEFINITIONS

1. **Command, Control, and Communications Countermeasures (C3CM)**. The integrated use of operations security, military deception, jamming and physical destruction, supported by intelligence, to deny information to influence, degrade, or destroy adversary command, control, and communications (c3) capabilities and to protect friendly c3 against such actions.

2. **Electronic Counter-Countermeasures (ECCM)**. Actions taken to ensure friendly, effective use of the electromagnetic warfare, to include high power microwave techniques.

3. **Electronic Warfare (EW)**. Military actions involving the use of electromagnetic energy to determine, exploit, reduce, or prevent hostile use of the electromagnetic spectrum and action to retain its effective use by friendly forces.

4. **Wartime Reserve Modes (WARM)**. Actions taken to search for, intercept, locate, record, and analyze radiated electromagnetic energy for exploiting such radiations in support of military operations.

D. POLICY

It is DoD policy to:

1. Ensure the development and acquisition of weapon systems, automated planning systems, and all-source intelligence information that effectively support C3CM strategies.
2. Ensure that assessments by the DoD Components of vulnerabilities of friendly and hostile command and control (C2) are robust and that viable C2 of friendly and allied forces prevail.
3. Ensure the development and acquisition of robust war-fighting EW systems in accordance with DoD Directive 5000.1 (reference (c)), while maximizing commonality of resources among the Services and Agencies.
4. Develop and maintain an investment strategy that ensures an orderly process between the identification of the requirement and the development and/or acquisition of EW systems to meet the stated requirement.
5. Encourage cooperative EW system developments and the application of C3CM strategies between the United States and its Allies.
6. Ensure that operational requirement documents, mission need statements, and subsequent development, design, and test of systems shall consider and incorporate, where appropriate, C3CM and ECCM capabilities.
7. Ensure that the potential for mutual interference between U.S. and Allied systems is evaluated under DoD Directive 3222.2 (reference (d)) before production of U.S. systems.
8. Ensure effective intelligence support is provided over the life cycle of EW systems, WARM capabilities, ECCM, and C3CM.
9. Ensure a vulnerability assessment strategy is considered over the life cycle of a system, and ECCM is considered at all Milestone Reviews.

E. RESPONSIBILITIES

1. The Under Secretary of Defense for Acquisition shall:
 - a. Be the DoD focal point for EW and tactical C3CM within the Department of Defense.
 - b. Provide guidance on EW and tactical C3CM policy.
 - c. Coordinate international EW system development and acquisition issues between the United States and its Allies consistent with DoD Directive 3100.3 (reference (e)).
 - d. Ensure that tactical C3CM programs, tactics, and employment are coordinated among the DoD Components and with Allied Nations, as necessary.
 - e. Provide oversight for development and acquisition of tactical land, sea, air, space, or undersea EW systems and application of WARM and tactical C3CM strategies.

f. Review EW programs for duplication and maximum multi-Service applications. When common requirements exist and acquisition efficiencies can be realized, ensure the Services and/or agencies are committed to joint EW designs and acquisitions.

g. Review and approve quick reaction capability programs.

h. Ensure that ECCM and WARM are considered throughout the system's and/or subsystem's life cycle and addressed by the Defense Acquisition Board's (DAB) program and milestone reviews.

i. Provide matrix EW technical and/or management support within the OSD on request.

j. Ensure the compatibility of U.S. tactical C3CM systems so as to avoid unintentional disruption of other U.S. or Allied systems.

k. Ensure availability of capabilities for development and operational test and evaluation (OT&E), including coordinated hardware and software simulations, hybrids, chambers, simulators, and open air ranges, to evaluate EW systems and the ECCM of weapon systems.

i. Ensure that a system is tested in an EW environment during development test and evaluation (DT&E), including the requirements for ECCM testing.

m. Ensure that adequate science and technology programs exist to provide technology for development and acquisition of EW systems and to support tactical C3CM strategies.

n. Coordinate with Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD(C3I)) in the establishment of an overall comprehensive C3CM strategy.

o. Ensure the development and use of common data bases and presentation techniques in support of EW systems, WARM capabilities, and tactical C3CM strategies in development, planning, and operations.

p. Ensure life-cycle intelligence support through the conceptualization, development, testing, employment, and deployment of EW systems, WARM capabilities, and tactical C3CM strategies.

q. Ensure the coordination of the provisions of data bases and specifications of U.S. systems with the Intelligence Community when EW equipment is sold overseas.

2. The Assistant Secretary of Defense for Command, Control, Communications, and Intelligence shall:

a. Be the DoD focal point for strategic C3CM within the Department of Defense.

b. Provide guidance on strategic C3CM policy.

c. Ensure the compatibility of U.S. c3 systems so as to avoid unintentional disruption of other U.S. or Allied systems.

d. Ensure, in coordination with Under Secretary of Defense for Acquisition (USD(A)), that adequate science and technology programs exist to provide technology to support strategic C3CM strategies.

e. Ensure that strategic C3CM programs, tactics, and employment are coordinated among the DoD Components and with Allied Nations, as necessary.

f. Ensure the development and use of common data bases and presentation techniques in support of strategic C3CM planning and operations.

g. Coordinate with the USD(A) in the establishment of an overall comprehensive C3CM strategy.

h. Ensure life-cycle intelligence support in support of strategic C3CM strategies.

3. The Director, Operational Test and Evaluation shall ensure electronic systems are tested to adequately assess the EW capability, including ECCM, during OT&E, including combined DT&E and/or OT&E.

4. The Secretaries of the Military Departments shall:

a. Identify EW and WARM related operational requirements; conduct research, development, test, and evaluation (RDT&E) on EW systems and WARM capabilities; acquire EW and WARM capabilities; and ensure that ECCM is considered at each stage in the life cycle of electronic equipment.

b. Develop, in consultation with the Director of the Defense Intelligence Agency (DIA) and other intelligence agencies, current and projected baseline threat data and intelligence requirements throughout the life cycle of EW projects and support C3CM strategies. With the current, projected, reactive, and technically feasible threats, develop a baseline threat scenario to be used by program managers developing systems.

c. Identify and ensure availability of logistics and manpower resources to meet readiness requirements, and conduct EW, WARM, and C3CM training programs.

d. Ensure that EW, WARM, and C3CM programs and data bases achieve maximum standardization, interoperability, and compatibility in fulfilling common worldwide requirements. When common requirements exist and acquisition efficiencies can be realized, a commitment to joint EW designs and acquisitions shall be made. Establish joint program offices when common EW or C3CM equipments are identified.

e. Coordinate with the USD(A) and ASD(C3I), as appropriate, on all international EW, WARM, and C3CM initiatives before submission at international forums.

f. Provide data, to include test data, to the Director of the DIA of U.S. systems, especially on EW systems and WARM capabilities, that have been sold to foreign countries.

5. The Chairman of the Joint Chiefs of Staff shall:

a. Serve as the focal point for consideration of joint and combined EW, WARM, and C3CM operational matters to avoid duplication of effort and to

encourage standardization, interoperability, and compatibility in fulfilling and approving of common requirements.

b. Coordinate consideration of EW, WARM, and C3CM operational matters affecting relations with U.S. Allies to ensure that agreed U.S. positions are established and appropriate coordination and followup actions are completed.

c. Advise the USD(A) and ASD(C3I), as appropriate, on matters that affect EW, WARM, and C3CM policy.

d. Ensure continuity of U.S. efforts in North Atlantic Treaty Organization's (NATO's) Military Committee to improve Allied EW and C3CM capability.

e. Provide joint operational doctrine, policy, procedures, and strategic concepts or objectives to govern the coordination and employment of EW, WARM, and C3CM.

f. Evaluate the capability of the Unified and Specified Commands to operate in a C3CM environment representative of the anticipated threat, recommend appropriate corrective actions to the Secretary of Defense, or recommend appropriate corrective action to the commander of the Unified and Specified Commands.

g. Ensure that the EW, WARM, and C3CM planning strategies and capabilities are exercised in joint and combined exercises and tests with particular emphasis on maximizing the stress placed on the ability to interoperate between and among the Services and U.S. Allies, including the operational validity of the common databases.

6. The Director of the Defense Intelligence Agency shall:

a. Develop, with the support of the Military Services and other intelligence agencies, current and projected baseline threat data for use in developing EW projects, WARM capabilities, and C3CM strategies throughout their life cycles.

b. Validate the DoD Components' system threat assessment reports (STAR) for acquisition category (ACAT) 1 D programs (and ACAT 1 up to Milestone I). Validate threat data bases and threat assessment procedures used by Components in preparing system threat assessment for acquisition categories I-IV and highly sensitive classified programs.

c. Assist the Military Services in evaluating current, projected, technically feasible, and reactive threats in support of major decisions on EW specifications and requirements.

d. Provide support and advice to commanders for planning and conducting C3CM.

7. The Director of the National Security Agency shall provide signals intelligence (SIGINT) and information systems security (INFOSEC) support for EW and WARM projects and C3CM strategies in response to validated and confirmed requirements levied through appropriate channels. SIGINT shall be made available, through direct delivery where applicable, to operational and intelligence users in support of joint and combined operations.

8. The Director of the Defense Information Systems Agency shall ensure that:

a. DISA architectures consider EW, ECCM, and C3CM.

b. DoD and allied standards and interoperability are adequately addressed in the requirements and development process.

c. Interoperability testing is performed to verify that the requirements are met.

F. PROCEDURES

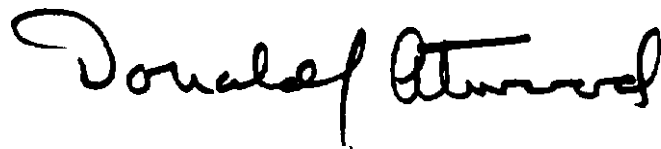
Each DoD Component shall identify and maintain an organization to oversee its EW, ECCM, and C3CM activities.

G. INFORMATION REQUIREMENTS

The reporting requirements in this Directive are exempt from licensing in accordance with paragraph E.4.a. of DoD Directive 7750.5 (reference (f)).

H. EFFECTIVE DATE

This Directive is effective immediately.



Donald J. Atwood
Deputy Secretary of Defense